

What is claimed is:

1. A telescopic winged safety needle assembly, comprising:
 - a hub having a distal end, a proximal end, and an axial through hole;
 - a cannula joined to said hub adjacent the distal end of the hub;
 - 5 a cylindrical sleeve having a locking tab attached thereto, said cylindrical sleeve being axially disposed on said hub;
 - a cylindrical sheath for retaining said hub therein and having a distal end and a proximal end, said hub being slidable along an inner surface of said cylindrical sheath and an inner surface of said cylindrical sleeve from a first telescopic position at which the distal end of said cannula
 - 10 joined to said hub projects beyond the distal end of said cylindrical sheath by a predetermined length, to a second telescopic position at which said distal end of the cannula is protectively contained within said cylindrical sheath;
 - a pair of flexible wings provided on the outer peripheral surface adjacent the distal end of said cylindrical sheath; and
 - 15 a first locking mechanism and a second locking mechanism disposed on said assembly, whereby said first locking mechanism releasably locks said hub, said cylindrical sleeve, and said sheath at the first telescopic position, and said second locking mechanism unreleasably locks said hub, said cylindrical sleeve, and said cylindrical sheath at the second telescopic position.
2. A telescopic winged safety needle assembly according to claim 1, wherein said first
- 20 locking mechanism comprises said locking tab attached to said cylindrical sleeve, a first opening located along a length of the cylindrical sleeve, a second opening located on said cylindrical sheath, and a first groove formed in said hub, wherein when said hub is located at the first telescopic position in relation to said cylindrical sleeve and said cylindrical sheath, said locking

tab releasably engages said hub, said cylindrical sleeve, and said cylindrical sheath.

3. A telescopic winged safety needle assembly according to claim 1, wherein said second locking mechanism comprises a first annular ring and a second annular ring provided on the exterior distal end of said hub, an annular ring provided on the interior proximal end of said cylindrical sleeve, a first lug and a second lug provided on the proximal exterior end of said cylindrical sheath, and a first annular ring and a second annular ring provided on the interior distal end of said cylindrical sleeve, wherein when said hub, said cylindrical sleeve, and said cylindrical sheath are located at the second telescopic position, said first annular ring and said second annular ring provided on the exterior distal end of said hub unreleasably engage said annular ring provided on the interior proximal end of said cylindrical sleeve, and said first lug and said second lug provided on the proximal exterior end of said cylindrical sheath unreleasably engage said first annular ring and said second annular ring provided on the interior distal end of said cylindrical sleeve.

4. A telescopic winged safety needle assembly according to claim 3, wherein said annular ring provided on the interior proximal end of said cylindrical sleeve includes a sharp angled edge to unreleasably engage said second annular ring provided on the exterior distal end of said hub.

5. A telescopic winged safety needle assembly according to claim 1, wherein said cannula is rotateable relative to the cylindrical sheath.

6. A telescopic winged safety needle assembly according to claim 5, wherein said hub is marked to indicate the orientation of a bevel edge of the cannula relative to the cylindrical sheath.

7. A telescopic winged needle assembly according to claim 2, wherein said locking tab includes a projection that is inserted through the first opening in the cylindrical sleeve and the

second opening in the cylindrical sheath to releasably engage said first groove of said hub, said cylindrical sleeve, and said cylindrical sheath.

8. A telescopic winged needle assembly according to claim 1, wherein a tube is connected to the proximal end of the hub.

5 9. A telescopic winged needle assembly according to claim 1, wherein an outer surface of said hub is supported by three inner ribs located on an inner proximal surface of the cylindrical sleeve to allow the hub to pass smoothly through the inner proximal surface of the cylindrical sleeve.

10. A telescopic winged needle assembly according to claim 1, wherein the locking tab is
10 attached to the cylindrical sleeve by a hinge.

11. A telescopic winged safety needle assembly, comprising:

a hub having a distal end, a proximal end, and an axial through hole;

a cannula joined to said hub adjacent the distal end of the hub;

a cylindrical sleeve having a locking tab attached thereto, said cylindrical sleeve being
15 axially disposed on said hub;

a cylindrical sheath for retaining said hub therein and having a distal end and a proximal end, said hub being slidable along an inner surface of said cylindrical sheath and an inner surface of said cylindrical sleeve from a first telescopic position at which the distal end of said cannula joined to said hub projects beyond the distal end of said cylindrical sheath by a predetermined
20 length, to a second telescopic position at which said distal end of the cannula is protectively contained within said cylindrical sheath, said cannula joined to said hub being rotateable relative to said cylindrical sleeve and said cylindrical sheath;

a pair of flexible wings provided on the outer peripheral surface adjacent the distal end of said cylindrical sheath; and

a first locking mechanism and a second locking mechanism disposed on said assembly, whereby said first locking mechanism releasably locks said hub, said cylindrical sleeve, and said sheath at the first telescopic position, and said second locking mechanism unreleasably locks said hub, said cylindrical sleeve, and said cylindrical sheath at the second telescopic position.

12. A telescopic winged safety needle assembly according to claim 11, wherein said first locking mechanism comprises said locking tab attached to said cylindrical sleeve, a first opening located along a length of the cylindrical sleeve, a second opening located on said cylindrical sheath, and a first groove formed in said hub, wherein when said hub is located at the first telescopic position in relation to said cylindrical sleeve and said cylindrical sheath, said locking tab releasably engages said hub, said cylindrical sleeve, and said cylindrical sheath.

13. A telescopic winged safety needle assembly according to claim 11, wherein said second locking mechanism comprises a first annular ring and a second annular ring provided on the exterior distal end of said hub, an annular ring provided on the interior proximal end of said cylindrical sleeve, a first lug and a second lug provided on the proximal exterior end of said cylindrical sheath, and a first annular ring and a second annular ring provided on the interior distal end of said cylindrical sleeve, wherein when said hub, said cylindrical sleeve, and said cylindrical sheath are located at the second telescopic position, said first annular ring and said second annular ring provided on the exterior distal end of said hub unreleasably engage said annular ring provided on the interior proximal end of said cylindrical sleeve, and said first lug and said second lug provided on the proximal exterior end of said cylindrical sheath unreleasably

engage said first annular ring and said second annular ring provided on the interior distal end of said cylindrical sleeve.

14. A telescopic winged safety needle assembly according to claim 13, wherein said annular ring provided on the interior proximal end of said cylindrical sleeve includes a sharp angled edge to unreleasably engage said second annular ring provided on the exterior distal end of said hub.

15. A telescopic winged safety needle assembly according to claim 11, wherein said hub is marked to indicate the orientation of a bevel edge of the cannula relative to the cylindrical sheath.

16. A telescopic winged needle assembly according to claim 11, wherein said locking tab includes a projection that is inserted through the first opening in the cylindrical sleeve and the second opening in the cylindrical sheath to releasably engage said first groove of said hub, said cylindrical sleeve, and said cylindrical sheath.

17. A telescopic winged needle assembly according to claim 11, wherein an outer surface of said hub is supported by three inner ribs located on an inner proximal surface of the cylindrical sleeve to allow the hub to pass smoothly through the inner proximal surface of the cylindrical sleeve.

18. A telescopic winged needle assembly according to claim 11, wherein a tube is connected to the proximal end of the hub.

19. A telescopic winged needle assembly according to claim 11, wherein the locking tab is attached to the cylindrical sleeve by a hinge.

20. A telescopic winged safety needle assembly, comprising:

a hub having a distal end, a proximal end, and an axial through hole;

a cannula joined to said hub adjacent the distal end of the hub;

a cylindrical sleeve axially disposed on said hub;

a cylindrical sheath for retaining said hub therein and having a distal end and a proximal end, said hub being slidable along an inner surface of said cylindrical sheath and an inner surface of said cylindrical sleeve from a first telescopic position at which the distal end of said cannula joined to said hub projects beyond the distal end of said cylindrical sheath by a predetermined length, to a second telescopic position at which said distal end of the cannula is protectively contained within said cylindrical sheath and said assembly is minimized in length, wherein said hub is pulled in a proximal direction relative to said cylindrical sheath and said cylindrical sleeve at said first telescopic position until said cylindrical sheath unreleasably locks to said cylindrical sleeve, followed by said hub unreleasably locking to said cylindrical sleeve at said second telescopic position; and

a pair of flexible wings provided on the outer peripheral surface adjacent the distal end of said cylindrical sheath.

21. A telescopic winged safety needle assembly according to claim 20, further including a first locking mechanism and a second locking mechanism disposed on said assembly, whereby said first locking mechanism releasably locks said hub, said cylindrical sleeve, and said sheath at the first telescopic position, and said second locking mechanism unreleasably locks said hub, said cylindrical sleeve, and said cylindrical sheath at the second telescopic position.

22. A telescopic winged safety needle assembly according to claim 21, wherein said first locking mechanism comprises a locking tab attached to said cylindrical sleeve, a first opening located along a length of the cylindrical sleeve, a second opening located on said cylindrical sheath, and a first groove formed in said hub, wherein when said hub is located at the first telescopic position in relation to said cylindrical sleeve and said cylindrical sheath, said locking

tab releasably engages said hub, said cylindrical sleeve, and said cylindrical sheath.

23. A telescopic winged safety needle assembly according to claim 21, wherein said second

locking mechanism comprises a first annular ring and a second annular ring provided on the

exterior distal end of said hub, an annular ring provided on the interior proximal end of said

5 cylindrical sleeve, a first lug and a second lug provided on the proximal exterior end of said

cylindrical sheath, and a first annular ring and a second annular ring provided on the interior

distal end of said cylindrical sleeve, wherein when said hub, said cylindrical sleeve, and said

cylindrical sheath are located at the second telescopic position, said first annular ring and said

second annular ring provided on the exterior distal end of said hub unreleasably engage said

10 annular ring provided on the interior proximal end of said cylindrical sleeve, and said first lug

and said second lug provided on the proximal exterior end of said cylindrical sheath unreleasably

engage said first annular ring and said second annular ring provided on the interior distal end of

said cylindrical sleeve.

24. A telescopic winged safety needle assembly according to claim 23, wherein said annular

15 ring provided on the interior proximal end of said cylindrical sleeve includes a sharp angled edge

to unreleasably engage said second annular ring provided on the exterior distal end of said hub.

25. A telescopic winged safety needle assembly according to claim 20, wherein said cannula

is rotateable relative to the cylindrical sheath.

26. A telescopic winged safety needle assembly according to claim 25, wherein said hub is

20 marked to indicate the orientation of a bevel edge of the cannula relative to the cylindrical

sheath.

27. A telescopic winged needle assembly according to claim 22, wherein said locking tab

includes a projection that is inserted through the first opening in the cylindrical sleeve and the

second opening in the cylindrical sheath to releasably engage said first groove of said hub, said cylindrical sleeve, and said cylindrical sheath.

28. A telescopic winged needle assembly according to claim 20, wherein a tube is connected to the proximal end of the hub.

5 29. A telescopic winged needle assembly according to claim 20, wherein an outer surface of said hub is supported by three inner ribs located on an inner proximal surface of the cylindrical sleeve to allow the hub to pass smoothly through the inner proximal surface of the cylindrical sleeve.

10 30. A telescopic winged needle assembly according to claim 22, wherein the locking tab is attached to the cylindrical sleeve by a hinge.